Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Potential High-Cost Areas for Next	)	
Generation Network Experiments	)	WC Docket No. 10-90
	)	

"EXPRESSION OF INTEREST"

RURAL BROADBAND SERVICES CORPORATION, INC.
(dba RBSC Oklahoma LLC)

RURAL EASTERN OKLAHOMA

"PHASE II A"

March 7, 2014

INTRODUCTION

Rural Broadband Services Corporation, Inc. (RBSC) files its "Expression of Interest" in this proceeding pursuant to the Public Notice released by the Commission on February 6, 2014 (DA 14-154). In the Further Notice of Proposed Rulemaking, the Commission proposes to make available in any part of the country, whether served by an incumbent price cap carrier or rate-of-return carrier, a limited amount of Connect America Funds to entities willing to deploy robust, scalable broadband to high-cost areas.

RBSC's founder, Roy Choates[1], is dedicated to serving the broadband communication needs of high-cost rural America. He is keenly aware of the challenges accompanying the provision of "universal service" in extremely high-cost to serve areas of the country. Meeting the needs of Native Americans, like the Cherokee Nation, which RBSC is embarking to serve in the Tahlequah "Proof of Concept" project[2] is another dimension of the challenge of providing robust, scalable broadband to remote, high-cost to serve rural areas.

Recently, RBSC was formed for the purpose of bringing to fruition the founder's vision of creating "Smart Rural Communities" throughout rural America. These communities will grow and prosper, because at their heart will be a "Shared Infrastructure," Gigabit fiber ring that springboards key "anchor institutions" within small towns to the forefront of regional economic

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[1] About Roy Choates . . . he began a 47 year career with Bell South, advancing quickly in their minority "Fast Track" executive program. He moved on to MediaOne and completed a 13,000 sheath mile rebuild of Atlanta, GA for the 1996 Olympic Games. Mr. Choates was responsible for a large CLEC 36 cities network build out in 36 months. From 2000-2007 he constructed terrestrial fiber networks in an extremely high-cost to serve insular area. In 2009/2010 he completed and received ARRA awards for 2 applications through the BIP process, including one project for the Lumbee Indian Tribe, headquartered in Red Springs, NC.

[2] RBSC filed under separate cover its "Expression of Interest" to provide "Smart Gigabit Ethernet" in the town of Tahlequah, Oklahoma.

opportunity within the area. A robust, scalable fiber network will allow leveraging of educational opportunity at the university level, quality healthcare, participative local government, enhanced public and private safety, and "Smart Grid"[3] management of energy resources to spur on local economic development, creating new jobs to ensure a bright future for the residents of these small, forward-looking towns.

RBSC has mastered a communications infrastructure deployment method it calls, "Rapid Deployment Technology."[4] Rather than slowly moving forward with the design, engineering, and construction of robust fiber networks over a period of years, RBSC moves forward quickly to completion of networks in a matter of months. Moving forward quickly is extremely important to rural Americans. Many small towns are off the price cap carrier's fiber grid. For that reason, these small towns in rural America are fighting to survive day-by-day, because the "Digital Divide" continues to widen.

Price cap carriers serving large, urban American cities are deploying fiber networks and offering 100 Megabit services to compete for "anchor institutions," entities that are the targets of several other equally large carriers as a result of technology convergence and exploding market demand for bandwidth. However in the rural American counterpart, small towns will fail to survive as they continue to see educational opportunity, quality healthcare, and economic development . . . and their children . . . move away to urban America.

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[3] RBSC's founder has explored with a number of rural electric municipal cooperatives the challenges of deploying shared infrastructure networks for the dual purpose of providing broadband communication services and "Smart Grid" power management applications in small, rural communities of the Southeast U.S.

[4] RBSC utilizes this method to quickly deploy 100% fiber optic Gigabit networks, FCC licensed spectrum, and shared infrastructure that provides broadband services and smart grid power management for rural Americans.

Bottom line, a relatively small amount of federal Connect America Funding in small town America to meet the communication needs of universities, hospitals, and other key "anchor institutions" can go a long way toward preserving rural America's quality-of-life and economic health. Constructing a "last mile" Gigabit fiber ring that can be coupled with sufficient "middle mile" transport[5] will keep rural Americans participating in the "Broadband Revolution" and benefiting from rural economic development opportunities.

GEOGRAPHIC TERRITORY

RBSC has identified approximately 30 small towns, the top 10 of which are located in rural Eastern Oklahoma, where it has plans to deploy "last mile" Gigabit fiber rings to meet the communication needs of small universities, regional medical centers, and other key "anchor institutions."

The Tahlequah, Oklahoma project is RBSC's starting point. It is well underway and will serve as the "Proof of Concept" for this broadband experiment. Phase IIA is the next step in RBSC's expansion plans for rural Eastern Oklahoma. RBSC is in the process of obtaining the necessary Certificates of Convenience and Necessity and a statewide Eligible Telecommunications Carrier designation from the Oklahoma Public Utility Commission.

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[5] RBSC is working closely with OneNet, a Stimulus award recipient providing 2000 miles of transport in Oklahoma. MBO is another "Middle Mile" carrier that will provide facilities in the 5-county Phase IIA project to link RBSC fiber rings with OneNet's statewide transport network. These partners will ensure uniform bandwidth up to Gigabit speeds for the entire connectivity.

Phase IIA of RBSC's "Broadband Experiment" will center on the following rural Eastern Oklahoma towns and counties:

- Muskogee (Muskogee County: Census Tract Nos. 1, 2, 3, 4, 7, 8.01, 8.02, 9, and 10)
- Sallisaw (Sequoyah County: Census Tract Nos. 301.01, 302.02, 303.01, and 303.02)
- Poteau (LeFlore County: Census Tract Nos. 403.01, 403.02, 404.01, 404.02, 405)
- McAlester (Pittsburgh County: Census Tract Nos. 4861- 4866)
- Atoka (Atoka County: Census Tract No. 5877)

AT&T and OK Windstream are the incumbent carriers providing voice and broadband communications in these towns. RBSC chose to serve these towns because they are off the "last mile fiber grid" of these price cap carriers. Copper-based DSL service is available; however, it is inadequate for the bandwidth needs of the key "anchor institutions" of these five communities.

Key Anchor Institutions

Key "Anchor Institutions" within the five town service areas include: Muskogee – Bacone College, Connors State College, Northeastern State University, Indian Capital Technology Center, Muskogee Community Hospital, Solara Hospital, Jack C. Montgomery VA Medical Center; Sallisaw – Carl Albert State College, Sequoyah Memorial Hospital; Poteau – Carl Albert State College; McAlester – Eastern Oklahoma State College, Kiamichi Technology Center; Atoka – Atoka Memorial Hospital.

In each of these five towns RBSC will also seek out a relationship with the local power company and, if agreeable, work together with these companies to demonstrate how "Shared

Infrastructure" can be utilized to improve energy efficiency and cut consumer power costs in "Smart Communities."

Proposed Technology / Scalability

RBSC is constructing aerial Gigabit fiber rings that will pass through the commercial districts of these five towns. The fiber rings will be powered by ADVA electronics, which have been used to light fiber rings around the globe, including major urban American cities. The fiber/ADVA ring is state-of-art technology. RBSC will be among the first network providers to offer Ethernet services in rural Eastern Oklahoma. In addition, the ADVA electronics are capable of extending the service area reach up to 50 miles, which positions RBSC to move into other neighbor rural areas in its subsequent Phase IIB expansion. Commercial speeds offered by RBSC are symmetrical up and down and expected to range from 25 Megabits to10 Gigabits.

State/Local/Tribal Governments Participating In and/or Supporting the Project

RBSC will approach the Mayors and City Councils of each of the five selected towns to gain their support in completing RBSC's Phase IIA project. The local government officials will enter into agreements, including Pole Attachment Agreements, to provide all the local resources needed to commence construction of the aerial Gigabit fiber networks. RBSC will provide new jobs in these towns to maintain the networks.

As was the case in the "Proof of Concept" town of Tahlequah, Oklahoma, RBSC expects the anchor institutions will be fully supportive of the project, since they are "bandwidth

starved." In addition, an RBSC local presence is essential to the ongoing identification of the communication needs of the community. For that reason RBSC will establish an Advisory Board for each selected town, including executives from anchor institutions and other civic leaders. The Advisory Board will meet with RBSC's president and other management periodically to add their business insights to RBSC's management of its ongoing operations.

The State of Oklahoma was awarded a $100 million BTOP grant through the ARRA process to construct OneNet, a 2,000 mile "Middle Mile" fiber project. OneNet provides sufficient bandwidth for rural Oklahoma schools and libraries through willing "last mile" providers like RBSC. RBSC will leverage the OneNet ARRA award and utilize 6 dark fibers to provide uniform bandwidth connectivity all the way to the Internet. Rural Eastern Oklahoma users will experience no throttling down in speed when riding the combined last and middle mile fiber networks of RBSC and OneNet, respectively.

Finally, RBSC is negotiating with a wireless partner for spectrum to meet special community service and public safety needs of these rural communities. For example, emergency care responders typically have only limited cell phone coverage throughout the five counties RBSC will serve in Phase IIA. For that reason, RBSC plans to provide a broadband wireless product that will allow downloading of medical histories while urgent care patients are in transport. Rather than medical staff simply seeking to stabilize the patient, they will have access to information to immediately initiate more comprehensive medical care. This same spectrum will also allow students high-speed access to the Internet, at discounted service rates, while away from school.

Project Time Line

Beginning during the latter months of 2014, RBSC will meet with the Mayors and City Council members of the five selected cities. RBSC will enter into Pole Attachment Agreements that will provide the construction routes for the aerial Gigabit fiber networks. RBSC will also gain access to the local resources needed to commence construction of the networks. Detailed route engineering documents will be prepared by RBSC for approval during this time period, allowing construction of the networks to begin early in 2015. Over the remainder of the year RBSC will complete construction of the five aerial Gigabit fiber networks, conduct network testing and select beta customers for quality service testing. By December 31, 2015, RBSC's Gigabit Networks will be Service Ready.

Total Project Cost

The estimated Phase IIA project cost is $3.5 million. RBSC is a minority owned corporation. Equity capital provided at this time is $750,000. A $1 million product line of credit has also been provided by one of the primary equipment suppliers. RBSC internally generated funds are expected to provide cash flow for operations and repayment of debt. With a successfully completed Tahlequah "Proof of Concept" project under its belt, RBSC will be well positioned to move forward in Phase IIA with its plans to build out the selected five towns in rural Eastern Oklahoma. RBSC will be applying for an additional grant of $3.5 million to complete this Phase IIA project.

Conclusion

About 75 years ago the federal government established the Rural Electrification Administration recognizing that the future of rural America rested upon the successful build-out of power and telecommunications infrastructure. Today, shared infrastructure will be needed to help rural America survive. RBSC envisions the continued growth and prosperity of rural America riding upon the health of established "anchor institutions" that must stay abreast of urban America's pace of change – advancing technology and cost efficiency. Robust broadband networks will be required to make that happen. RBSC's application of breakthrough technology – "Smart Gigabit Ethernet" – can make it so for rural America.

Respectfully submitted,
Rural Broadband Services Corporation, Inc.

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